AFCTN Test Report 93-033

CALS TEST NETWORK

AFCTB-ID 93-039

Technical Raster Transfer

Using:

4950th Test Wing/AMIS' Data

MIL-R-28002A (Raster)

Quick Short Test Report

19 April 1993

19960822 185

Prepared for

Electronic Systems Center

Technical Raster Transfer

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Quick Short Test Report

19 April 1993

Prepared By
Air Force CALS Test Bed
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DISCLAIMER

Contents

1. Introduction

1.1 Background

The Department of Defense (DoD) Continuous Acquisition and Life-Cycle Support (CALS) Test Network (AFCTN) is conducting tests of the military standard for the Automated Interchange of Technical Information, MIL-STD-1840A, and its companion suite of military specifications. The AFCTN is a DoD sponsored confederation of voluntary participants from industry and government managed by the Electronic Systems Center (ESC).

The primary objective of the AFCTN is to evaluate the effectiveness of the CALS standards for technical data interchange and to demonstrate the technical capabilities and operational suitability of those standards. Two general categories of tests are performed to evaluate the standards; formal and informal.

Formal tests are large comprehensive tests that follow a written test plan, require specific authorization from the DoD, and may take months to prepare, execute, and report.

Informal tests are quick and short, used by the AFCTN technical staff, to broaden the testing base. They include representative samples of the many systems and applications used by AFCTN participants. They also allow the AFCTN staff to gain feedback from many industry and government interpretations of the standards, to increase the base of participation in the CALS initiative, and respond to the many requests for help that come from participants. Participants take part voluntarily, benefit by receiving an evaluation of their latest implementation (interpretation) of the standards, interact with the AFCTN technical staff, gain experience using the standards, and develope increased confidence in them. The results of informal tests are reported in Quick Short Test Reports (QSTRs) that briefly summarize the standard(s) tested, the hardware and software used, the nature of the test, and the results.

1.2 Purpose

The purpose of the informal test, reported in this QSTR, was to analyze the 4950th Test Wing/AMIS's interpretation and use of the CALS standards, in transferring technical Raster data. They used the CALS Technical Data Interchange System to produce data, in accordance with the standards, and delivered it to the AFCTN technical staff on a 9-track magnetic tape.

2. Test Parameters

Test Plan: AFCTB 93-039

Date of
Evaluation: 19 April 1993

Evaluator: George Elwood
                              Air Force CALS Test Bed
                              ESC/ENCP
                              4027 Colonel Glenn Hwy
                              Suite 200
                              Dayton OH 45431-1672

Data
Originator: Diane Sondergelt
                              4950th Test Wing/AMIS
                              Wright-Patterson AFB OH 45433
                              (513) 257-9745

Data
Description: Technical Raster Test
                                      1 Document Declaration file
                                      5 Raster files

Data
Source System:

          1840
                    HARDWARE
                              Unknown
                    SOFTWARE
                              Unknown

          Raster
                    HARDWARE
                              Unknown
                    SOFTWARE
                              Unknown

Evaluation Tools Used:

MIL-STD-1840A (TAPE)
SUN 3/280
AFCTN *Tapetool v1.2.8 UNIX*
AGFA Compugraphics *CAPS/CALS v40.4*
Texas Instrument (TI) *Tapetool v1.0.1*

MIL-R-28002 (Raster)
SUN SparcStation 2
ArborText *g42tiff*
AGFA Compugraphics *CAPS ccitt2caps v6.0x*
AFCTN *validg4*
AFCTN *calstb.475*
IGES Data Analysis (IDA) *IGESView 3.0*
Island Graphics *IslandPaint 3.0*
Cheetah
Inset Systems *HiJaak V2.1*
Inset Systems *HiJaak Window V1.0*
Software Publishing Corporation
(SPC) *Harvard Graphics V3.0*
Xerox *Ventura Publisher*

**Standards
Tested:**
MIL-STD-1840A
MIL-R-28002A

3. 1840A Analysis

3.1 External Packaging

The tape was hand delivered to the Air Force CALS Test Bed (AFCTB). It was not enclosed in a box in accorande with ASTM   D   3951.

The tape was not enclosed in a barrier bag nor barrier sheet material as required by MIL-STD-1840A, para. 5.3.1.2. Inspection of the tape reel showed a label indicating the recording density as required by MIL-STD-1840A, para. 5.3.1. A packing list, showing all files recorded on the tape, was not enclosed.

3.2 Transmission Envelope

The 9-track tape received by the AFCTB contained MIL-STD-1840A files. The files were named per the standard conventions.

3.2.1 Tape Formats

The tape was run through the AFCTN *Tapetool v1.2.8* utility. 24 errors and 1 note were reported while evaluating the contents of the tape labels. Both the HDR1 and EOF1 records were reported as having errors in the Block Count. The tape did not have any value for this field. The HDR1 record should have a value of 0000 and the EOF1 should reflect the actual blocks used for the data.

```
  Block Count:
  Implementation Identifier:
```

*** ERROR (ANSI X3.27; 8.5.1.13) - The characters in Block Count must be
    digits.

*** ERROR (ANSI X3.27; 8.5.1.13) - EOF1 Block Count does not equal
    to the actual block count. Expected = 0; Actual = 1

An additional error flagged by the TI version of *Tapetool* for both HDR1 and HDR2 was the use of null characters starting in position 54 in the header. ANSI 3.27, para. 6.2.1 requires the use of spaces or "characters" in these positions.

```
HDR1D001            TAPE0100010001000100 93104 93104
                                        ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
```

*** ERROR (ANSI X3.27; 6.2.1) - A label shall be a record that shall have a length of 80 bytes. Each label shall be recorded only within the first 80 byte positions of a block.

*** ERROR (ANSI X3.27; 8.1) - Unless otherwise stated, the characters in the labels shall be coded in accordance with ANSI X3.4-1986. The 57 characters used in the labels shall be those positions of the standard code table in ANSI X3.4-1986 listed on page 13 of ANSI X3.27-1987 (errors are marked by ^ and are printed as spaces in the label if necessary).

*** WARNING - This error will cause the software to misinterpret some of the label fields.

Part of the TI *Tapetool* log files are included in the Appendix of this report.

3.2.2 Declaration and Header Fields

72 errors and 73 notes were found in the Document Declaration File and data file headers. In Document Declaration File D001, an invalid change level was flagged. The error related to use of upper and lower case letters. MIL-STD-1840A , para. 5.1.1.2 shows the change level as "ORIGINAL". The field "chglvl" was shown as "chglvel". This error caused the AGFA *CAPS read1840A* utility to terminate processing the tape.

Several errors were reported also relating to the use of both upper and lower case letters. The value "None" was inserted for several header records when it should have been "NONE."

A date was also reported in error. The date value should be in the format YYYYMMDD.

srcdocid: None

*** ERROR (MIL-STD-1840A; 5.1.1.2) - Invalid value for 'srcdocid: '.
*** NOTE (MIL-STD-1840A; 5.1.1.2) - When the value 'NONE'
    is used, it must be capitalized.
*** NOTE - The 'srcdocid: ' Header Record will be given the value NONE.
*** NOTE - Correction made in new Document Declaration Header Record.
srcrelid: None
*** ERROR (MIL-STD-1840A; 5.1.1.2) - Invalid value for 'srcrelid: '.
*** NOTE (MIL-STD-1840A; 5.1.1.2) - When the value 'NONE'
    is used, it must be capitalized.
*** NOTE - The 'srcrelid: ' Header Record will be given the value NONE.
*** NOTE - Correction made in new Document Declaration Header Record.
chglvel: Original
*** ERROR (MIL-STD-1840A; 5.1.1.2) - Invalid Document Declaration header
    record identifier. Expected => chglvl:
*** NOTE - The value in the header record may not be evaluated.
*** NOTE - Correction made in new Document Declaration Header Record.
dteisu: 19930407
dstsys: Unknown
dstdocid: Unknown
dstrelid: Unknown
dtetrn: m15
*** ERROR (MIL-STD-1840A; 5.1.1.2) - Invalid date format encountered.
*** NOTE (MIL-STD-1840A; 5.1.1.2) - Date Format shall be a four digit year
    followed by a two digit month followed by a two digit day.

In the Raster files, the dstdocid field was flagged as
being incorrect. No value was assigned to the field even
though the Document Declaration file assigned "Unknown" as
the value.

The use of both upper and lower case letter were identified
as being incorrect.

If a tape contains only Raster or IGES files, it is consid-
ered to contain only product data information. If if is
product data the figure identification (figid) record should
contain the value "NONE."

dstdocid:
*** ERROR (MIL-STD-1840A; 5.1.4) - Space missing after header record
    identifier delimiter ':'.
*** ERROR (MIL-STD-1840A; 5.1.4) - Value missing after header field.
*** NOTE - The 'dstdocid: ' Header Record will be given the value 'NONE'.
*** NOTE - Correction made in new Raster Header File.
txtfilid: NONE
figid: None

*** ERROR (MIL-STD-1840A; 5.1.4) - Invalid value for 'figid: '.
*** NOTE (MIL-STD-1840A; 5.1.4) - When the value 'NONE'
    is used, it must be capitalized.
*** NOTE - The 'figid: ' Header Record will be given the value NONE.
*** NOTE - Correction made in new Raster Header Record.
srcgph: 9248492_sheet1
*** ERROR (MIL-STD-1840A; 5.1.4.4) - Invalid value for 'srcgph: '.
    Expected 'NONE' for Product Data.
*** NOTE - The 'srcgph: ' Header Record will be given the value NONE.
*** NOTE - Correction made in new Raster Header Record.

All Raster files must contain specific information on how they were
created. The rtype field will route the file into the correct type,
either "1" or "2". There was no value for this record.

The "orient" value is required to correctly orient the file
when it is displayed. No value was given for this record.

The "rpelcnt" and "density" record provides a location for
other important Raster data. Without this information most
systems can not process the file.

rtype:
*** ERROR (MIL-STD-1840A; 5.1.4) - Space missing after header record
    identifier delimiter ':'.
*** ERROR (MIL-STD-1840A; 5.1.4) - Value missing after header field.
*** NOTE - The 'rtype: ' Header Record will be given the value 'NONE'.
*** NOTE - Correction made in new Raster Header File.
orient:
*** ERROR (MIL-STD-1840A; 5.1.4) - Space missing after header record
    identifier delimiter ':'.
*** ERROR (MIL-STD-1840A; 5.1.4) - Invalid Raster header
    record identifier. Expected => rorient:
*** NOTE - The value in the header record may not be evaluated.
*** ERROR (MIL-STD-1840A; 5.1.4) - Value missing after header field.
*** NOTE - The 'rorient: ' Header Record will be given the value 'NONE'.
*** NOTE - Correction made in new Raster Header File.
rpelcnt:
*** ERROR (MIL-STD-1840A; 5.1.4) - Space missing after header record
    identifier delimiter ':'.
*** ERROR (MIL-STD-1840A; 5.1.4) - Value missing after header field.
*** NOTE - The 'rpelcnt: ' Header Record will be given the value 'NONE'.
*** NOTE - Correction made in new Raster Header File.
density:
*** ERROR (MIL-STD-1840A; 5.1.4) - Space missing after header record
    identifier delimiter ':'.

```
*** ERROR (MIL-STD-1840A; 5.1.4) - Invalid Raster header
    record identifier.  Expected => rdensty:
*** NOTE - The value in the header record may not be evaluated.
*** ERROR (MIL-STD-1840A; 5.1.4) - Value missing after header field.
*** NOTE - The 'rdensty: ' Header Record will be given the value 'NONE'.
*** NOTE - Correction made in new Raster Header File.
```

The tape does not meet the CALS MIL-STD-1840A requirements.

4. IGES Analysis

No Initial Graphics Exchange Specification (IGES) files were included on this tape.

5. SGML Analysis

No Standard Generalized Markup Language (SGML) files were included on this tape.

6. Raster Analysis

The tape contained five Raster files. All five files were evaluated using the AFCTN *validg4* utility. This program reported errors in all files. The reported errors were in the CALS headers. AFCTN *validg4* uses information in the CALS headers during the parsing procedure. This information was not included. See Appendix for a sample log file.

An attempt to display the Raster files using the AFCTN *calstb.475* resulted in a core dump.

It was also noted that the Raster data did not start at the correct location. Preforming an octal dump of the Raster files showed that the data started at location 4600 instead of the required 4000 hex. This error was probably cause by the incorrect tape written procedure.

The AFCTB has several tools for viewing Raster files. These tools are not used to generate a pass/fail but to report how commercially available software can handle the files. Many of these products are used in the development of technical

publications and are good indicators of usability. The use
of these products is not an endorsement nor an indication of
CALS capability. All operations were performed using the
default settings.

An attempt to read the files with Inset Systems' *HiJaak for
Windows*, Arbortext's *g42tiff* and IDA's *IGESView* resulted in
error messages being generated. Per Beverly Bernard of
Inset Systems, the problems associated with *HiJaak for Win-
dows v1.0* have been corrected in *HiJaak PRO v2.0*.

The Raster files do not meet the CALS MIL-R-28002A specifi-
cation.

7. CGM Analysis

No Computer Graphic Metafile (CGM) files were included on
this tape.

8. Conclusions and Recommendations

In summary, the tape from the 4950th Test Wing/AMIS was not correct. The tape contained both basic ANSI tape errors and CALS header errors.

The five Raster files could not be displayed by any of the AFCTB tools. The AFCTN *validg4* utility also reported the files were bad.

The tape does not meet the CALS MIL-STD-1840A requirements.

9. Appendix A - Tapetool Report Logs

9.1 Tape Catalog

Texas Instruments Catalog Evaluation - Version 1.0; Release Number 1

    Standards referenced:
      MIL-STD-1840A (1987) - Automated Interchange of Technical Information
      MIL-R-28003 (1988) - Digital Representation For Communication Of
                           Illustration Data; CGM Application Profile
      ANSI X3.27 (1987) - File Structure and Labeling of Magnetic Tapes
                          for Information Interchange
      ANSI X3.4 (1986) - Coded Character Sets - 7 Bit ASCII

Mon Apr 19 11:04:02 1993

MIL-STD-1840A File Catalog

File Set Directory: /cals/tt13/Set012

Tape Volume ID: TAPE01

Page: 1

File Name	File Type	Record Format/ Length	Block Length/Total	Selected/ Partial/ Extracted
D001	Document Declaration	D/00260	02048/000001	Extracted
D001R001	Raster	F/00128	02048/000074	Extracted
D001R002	Raster	F/00128	02048/000077	Extracted
D001R003	Raster	F/00128	02048/000054	Extracted
D001R004	Raster	F/00128	02048/000129	Extracted
D001R005	Raster	F/00128	02048/000040	Extracted

Catalog Process terminated normally.

9.2 Tape Evaluation Log

```
Texas Instruments Tape Evaluation - Version 1.0; Release Number 1
  Standards referenced:
    ANSI X3.27 (1987) - File Structure and Labeling of Magnetic Tapes
                        for Information Interchange
    ANSI X3.4 (1986) - Coded Character Sets - 7 Bit ASCII

Mon Apr 19 11:03:17 1993

ANSI Tape Import Log

Allocating tape drive /dev/rmt0...

/dev/rmt0 allocated.

VOL1TAPE01                        SONDERGD                                3

  Label Identifier: VOL1
  Volume Identifier: TAPE01
  Volume Accessibility:
  Implementation Identifier:
  Owner Identifier: SONDERGD
  Label Standard Version: 3

HDR1D001            TAPE0100010001000100 93104 93104
                                         ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^

*** ERROR (ANSI X3.27; 6.2.1) - A label shall be a record that shall have a
    length of 80 bytes. Each label shall be recorded only within the first
    80 byte positions of a block.
*** ERROR (ANSI X3.27; 8.1) - Unless otherwise stated, the characters in the
    labels shall be coded in accordance with ANSI X3.4-1986. The 57
    characters used in the labels shall be those positions of the standard
    code table in ANSI X3.4-1986 listed on page 13 of ANSI X3.27-1987 (errors
    are marked by ^ and are printed as spaces in the label if necessary).
*** WARNING - This error will cause the software to misinterpret some of the
    label fields.

  Label Identifier: HDR1
  File Identifier: D001
  File Set Identifier: TAPE01
  File Section Number: 0001
  File Sequence Number: 0001
  Generation Number: 0001
  Generation Version Number: 00
  Creation Date:  93104
```

  Expiration Date: 93104
  File Accessibility:
  Block Count:
  Implementation Identifier:

*** ERROR (ANSI X3.27; 8.5.1.13) - The characters in Block Count must be
    digits.

*** ERROR (ANSI X3.27; 8.5.1.13) - HDR1 Block Count must always be '000000'.

HDR2D020480026000SONDERGD//USR/BIN   B   00

  Label Identifier: HDR2
  Recording Format: D
  Block Length: 02048
  Record Length: 00260
  Offset Length: 00

************ Tape Mark **************

************ Tape Mark **************

  Minimum Block Size Found = 301 Bytes.
  Maximum Block Size Found = 301 Bytes.

*** NOTE - Last block was incomplete. Short blocks are
    proned to be interpreted as noise by some tape drives.
    Tape Label = 2048, Actual = 301, Block Number = 1

  Number of data blocks read = 1.

EOF1D001   TAPE0100010001000100 93104 93104
                                           ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^

*** ERROR (ANSI X3.27; 6.2.1) - A label shall be a record that shall have a
    length of 80 bytes. Each label shall be recorded only within the first
    80 byte positions of a block.
*** ERROR (ANSI X3.27; 8.1) - Unless otherwise stated, the characters in the
    labels shall be coded in accordance with ANSI X3.4-1986. The 57
    characters used in the labels shall be those positions of the standard
    code table in ANSI X3.4-1986 listed on page 13 of ANSI X3.27-1987 (errors
    are marked by ^ and are printed as spaces in the label if necessary).
*** WARNING - This error will cause the software to misinterpret some of the
    label fields.

  Label Identifier: EOF1
  File Identifier: D001
  File Set Identifier: TAPE01

File Section Number: 0001
File Sequence Number: 0001
Generation Number: 0001
Generation Version Number: 00
Creation Date: 93104
Expiration Date: 93104
File Accessibility:
Block Count:
Implementation Identifier:

*** ERROR (ANSI X3.27; 8.5.1.13) - The characters in Block Count must be
    digits.

*** ERROR (ANSI X3.27; 8.5.1.13) - EOF1 Block Count does not equal
    to the actual block count. Expected = 0; Actual = 1

EOF2D020480026000SONDERGD//USR/BIN   B   00

  Label Identifier: EOF2
  Recording Format: D
  Block Length: 02048
  Record Length: 00260
  Offset Length: 00

************ Tape Mark **************

HDR1D001R001   TAPE0100010002000100 93104 70001
                                                    ^

*** ERROR (ANSI X3.27; 6.2.1) - A label shall be a record that shall have a
    length of 80 bytes. Each label shall be recorded only within the first
    80 byte positions of a block.
*** ERROR (ANSI X3.27; 8.1) - Unless otherwise stated, the characters in the
    labels shall be coded in accordance with ANSI X3.4-1986. The 57
    characters used in the labels shall be those positions of the standard
    code table in ANSI X3.4-1986 listed on page 13 of ANSI X3.27-1987 (errors
    are marked by ^ and are printed as spaces in the label if necessary).
*** WARNING - This error will cause the software to misinterpret some of the
    label fields.

  Label Identifier: HDR1
  File Identifier: D001R001
  File Set Identifier: TAPE01
  File Section Number: 0001
  File Sequence Number: 0002
  Generation Number: 0001
  Generation Version Number: 00
  Creation Date: 93104

Expiration Date: 70001
File Accessibility:
Block Count:
Implementation Identifier:

*** ERROR (ANSI X3.27; 8.5.1.13) - The characters in Block Count must be
    digits.

*** ERROR (ANSI X3.27; 8.5.1.13) - HDR1 Block Count must always be '000000'.

HDR2F020480012800SONDERGD//USR/BIN M B   00

  Label Identifier: HDR2
  Recording Format: F
  Block Length: 02048
  Record Length: 00128
  Offset Length: 00

************ Tape Mark **************

************ Tape Mark **************

  Minimum Block Size Found = 2048 Bytes.
  Maximum Block Size Found = 2048 Bytes.

  Number of data blocks read = 74.

EOF1D001R001   TAPE0100010002000100 93104 70001
                                                ^

*** ERROR (ANSI X3.27; 6.2.1) - A label shall be a record that shall have a
    length of 80 bytes. Each label shall be recorded only within the first
    80 byte positions of a block.
*** ERROR (ANSI X3.27; 8.1) - Unless otherwise stated, the characters in the
    labels shall be coded in accordance with ANSI X3.4-1986. The 57
    characters used in the labels shall be those positions of the standard
    code table in ANSI X3.4-1986 listed on page 13 of ANSI X3.27-1987 (errors
    are marked by ^ and are printed as spaces in the label if necessary).
*** WARNING - This error will cause the software to misinterpret some of the
    label fields.

  Label Identifier: EOF1
  File Identifier: D001R001
  File Set Identifier: TAPE01
  File Section Number: 0001
  File Sequence Number: 0002
  Generation Number: 0001
  Generation Version Number: 00

Creation Date: 93104
Expiration Date: 70001
File Accessibility:
Block Count:
Implementation Identifier:

*** ERROR (ANSI X3.27; 8.5.1.13) - The characters in Block Count must be
    digits.

*** ERROR (ANSI X3.27; 8.5.1.13) - EOF1 Block Count does not equal
    to the actual block count. Expected = 0; Actual = 74

EOF2F020480012800SONDERGD//USR/BIN M B   00

  Label Identifier: EOF2
  Recording Format: F
  Block Length: 02048
  Record Length: 00128
  Offset Length: 00

************ Tape Mark **************

                        <<<<< *PART OF LOG FILE REMOVED HERE* >>>>>

************ Tape Mark **************

************ Tape Mark **************

############ End of Volume TAPE01 #############

############ End Of Tape File Set #############

Rewinding tape to load point...

Deallocating /dev/rmt0...

Tape Import Process terminated with 49 error(s), 12 warning(s),
and 1 note(s).

9.3 Tape File Set Validation Log

Texas Instruments File Set Evaluation - Version 1.0; Release Number 1
  Standards referenced:
    MIL-STD-1840A (1987) - Automated Interchange of Technical Information
    MIL-STD-804C (1990) - Formats and Coding of Aperture, Camera, Copy,
                          and Tabulating Cards
    MIL-R-28002 (1989) - Raster Graphics Representation In Binary
                         Format, Requirements For

Mon Apr 19 11:04:04 1993

MIL-STD-1840A File Set Evaluation Log

File Set: Set012

Found file: D001
Extracting Document Declaration Header Records...
Evaluating Document Declaration Header Records...

srcsys: Intergraph
srcdocid: None
*** ERROR (MIL-STD-1840A; 5.1.1.2) - Invalid value for 'srcdocid: '.
*** NOTE (MIL-STD-1840A; 5.1.1.2) - When the value 'NONE'
    is used, it must be capitalized.
*** NOTE - The 'srcdocid: ' Header Record will be given the value NONE.
*** NOTE - Correction made in new Document Declaration Header Record.
srcrelid: None
*** ERROR (MIL-STD-1840A; 5.1.1.2) - Invalid value for 'srcrelid: '.
*** NOTE (MIL-STD-1840A; 5.1.1.2) - When the value 'NONE'
    is used, it must be capitalized.
*** NOTE - The 'srcrelid: ' Header Record will be given the value NONE.
*** NOTE - Correction made in new Document Declaration Header Record.
chglvel: Original
*** ERROR (MIL-STD-1840A; 5.1.1.2) - Invalid Document Declaration header
    record identifier. Expected => chglvl:
*** NOTE - The value in the header record may not be evaluated.
*** NOTE - Correction made in new Document Declaration Header Record.
dteisu: 19930407
dstsys: Unknown
dstdocid: Unknown
dstrelid: Unknown
dtetrn: m15
*** ERROR (MIL-STD-1840A; 5.1.1.2) - Invalid date format encountered.
*** NOTE (MIL-STD-1840A; 5.1.1.2) - Date Format shall be a four digit year
    followed by a two digit month followed by a two digit day.
dlvacc: Unknown

```
filcnt: r5
ttlcls: Unclassified
doccls: Unclassified
doctyp: Project Header
docttl: Trainer
```

4 error(s), 0 warning(s), and 9 note(s) were encountered
in Document Declaration File D001.

Searching for data files...

Found file: D001R001
Extracting Raster Header Records...
Evaluating Raster Header Records...

```
srcdocid: 9248492s1.cit
dstdocid:
```
*** ERROR (MIL-STD-1840A; 5.1.4) - Space missing after header record
    identifier delimiter ':'.
*** ERROR (MIL-STD-1840A; 5.1.4) - Value missing after header field.
*** NOTE - The 'dstdocid: ' Header Record will be given the value 'NONE'.
*** NOTE - Correction made in new Raster Header File.
```
txtfilid: NONE
figid: None
```
*** ERROR (MIL-STD-1840A; 5.1.4) - Invalid value for 'figid: '.
*** NOTE (MIL-STD-1840A; 5.1.4) - When the value 'NONE'
    is used, it must be capitalized.
*** NOTE - The 'figid: ' Header Record will be given the value NONE.
*** NOTE - Correction made in new Raster Header Record.
```
srcgph: 9248492_sheet1
```
*** ERROR (MIL-STD-1840A; 5.1.4.4) - Invalid value for 'srcgph: '.
    Expected 'NONE' for Product Data.
*** NOTE - The 'srcgph: ' Header Record will be given the value NONE.
*** NOTE - Correction made in new Raster Header Record.
```
doccls: Unclassified
rtype:
```
*** ERROR (MIL-STD-1840A; 5.1.4) - Space missing after header record
    identifier delimiter ':'.
*** ERROR (MIL-STD-1840A; 5.1.4) - Value missing after header field.
*** NOTE - The 'rtype: ' Header Record will be given the value 'NONE'.
*** NOTE - Correction made in new Raster Header File.
```
orient:
```
*** ERROR (MIL-STD-1840A; 5.1.4) - Space missing after header record
    identifier delimiter ':'.
*** ERROR (MIL-STD-1840A; 5.1.4) - Invalid Raster header
    record identifier. Expected => rorient:
*** NOTE - The value in the header record may not be evaluated.
*** ERROR (MIL-STD-1840A; 5.1.4) - Value missing after header field.

*** NOTE - The 'rorient: ' Header Record will be given the value 'NONE'.
*** NOTE - Correction made in new Raster Header File.
rpelcnt:
*** ERROR (MIL-STD-1840A; 5.1.4) - Space missing after header record
    identifier delimiter ':'.
*** ERROR (MIL-STD-1840A; 5.1.4) - Value missing after header field.
*** NOTE - The 'rpelcnt: ' Header Record will be given the value 'NONE'.
*** NOTE - Correction made in new Raster Header File.
density:
*** ERROR (MIL-STD-1840A; 5.1.4) - Space missing after header record
    identifier delimiter ':'.
*** ERROR (MIL-STD-1840A; 5.1.4) - Invalid Raster header
    record identifier. Expected => rdensty:
*** NOTE - The value in the header record may not be evaluated.
*** ERROR (MIL-STD-1840A; 5.1.4) - Value missing after header field.
*** NOTE - The 'rdensty: ' Header Record will be given the value 'NONE'.
*** NOTE - Correction made in new Raster Header File.
notes: None
*** ERROR (MIL-STD-1840A; 5.1.4) - Invalid value for 'notes: '.
*** NOTE (MIL-STD-1840A; 5.1.4) - When the value 'NONE'
    is used, it must be capitalized.
*** NOTE - The 'notes: ' Header Record will be given the value NONE.
*** NOTE - Correction made in new Raster Header Record.

15 error(s), 0 warning(s), and 20 note(s) were encountered
 in Raster File D001R001.
Saving Raster Header File: D001R001_HDR
Saving Raster Data File: D001R001_GR4

*** ERROR (MIL-STD-1840A; 5.2.1.6) - Stray characters were found in the
    padding area of the Raster Header Block.
*** NOTE - Padding area will be considered to be data.

<<<<< PART OF LOG FILE REMOVED HERE >>>>>

Evaluating Document D001 numbering scheme...
No errors were encountered during numbering scheme evaluation.
Numbering scheme evaluation complete.

Checking Document D001 file count...
No errors were encountered during file count verification.
File Count verification complete.

Saving Document Declaration Header File: D001_HDR
Saving Document D001 Map File: MAP.LIS

A total of 79 error(s), 0 warning(s), and 109 note(s) were
encountered in Document D001.

A grand total of 79 error(s), 0 warning(s), and 109 note(s) were encountered in File Set Set012.

10. Appendix B - Raster Detailed Analysis

10.1 File D001R001

10.1.1 Error Log validg4

CALS header 2 coded improperly (see MIL-STD-1840A; 5.1.4).

Unable to read group 4 file = r001.cal
    return status from routine vfrini = 4

Bad CALS header terminated validation